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OVERALL PROGRESS ACHIEVED SINCE THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

Report of the Secretary-General

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INTRODUCTION

1. The present report was prepared in accordance with the General Assembly resolution 50/113 for the fifth session of the Commission on Sustainable Development, which will be devoted to preparations for the special session of the General Assembly to be held from 23 to 27 June 1997 for the purpose of an overall review and appraisal of the implementation of Agenda 21. The report also takes into account relevant provisions of General Assembly resolution 51/181 concerning the special session.

2. This report contains a global assessment of the current status of economic and social development and environmental sustainability, followed by an appraisal of progress made since the United Nations Conference on Environment and Development (UNCED), focusing on the main achievements and unrealized expectations. It also attempts to identify the main challenges and priorities in the implementation of Agenda 21 and of other outcomes of UNCED for the period after the 1997 review, including the future role of the Commission on Sustainable Development. The structure of the report takes into account the three main interrelated components of sustainable development, namely economic growth, social development and environmental sustainability.

3. The report does not analyse progress or lack thereof in the implementation of individual chapters of Agenda 21, nor does it describe all relevant activities or policy changes undertaken as a follow-up to UNCED at the international, regional and national levels or by the major groups. More detailed information on these actions can be found in the addenda to this report (E/CN.17/1997/2/Add.1-30) as well as in document E/CN.17/1997/5, which assesses progress achieved at the national level on the basis of information contained in the "country profiles" prepared in cooperation with the Governments concerned.

4. A number of conclusions presented in the report are based on the information contained in other reports prepared for the 1997 review, in particular in the reports on critical trends in sustainable development (E/CN.17/1997/3), the results of the comprehensive freshwater assessment (E/CN.17/1997/9) and activities that pose a major threat to the environment (E/CN.17/1997/4). Furthermore, in the preparation of the report account was taken of the outcomes of other recent international conferences, as well as of other major studies and reports that deal with issues relevant to sustainable development and the implementation of Agenda 21.

I. GLOBAL ASSESSMENT

A. Sustainable development in the years since the United Nations Conference on Environment and Development

5. At the United Nations Conference on Environment and Development, held at Rio de Janeiro in 1992, Governments adopted Agenda 21, a programme of action for sustainable development worldwide,[1] the Rio Declaration on Environment and Development[2] and the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable

Development of All Types of Forests (the Forest Principles).' Sustainable development may be regarded as the progressive and balanced achievement of sustained economic development, improved social equity and environmental sustainability. Accordingly, Agenda 21 stresses the importance of integrated policy development, citizen participation in decision-making including the full participation of women, institutional capacity-building and global partnerships involving many stakeholders.

6. Sustainable development is about change: change in development paths; change in the production and consumption patterns that determine how the needs - and often wants - of people are met and, in turn, contribute to - or hinder - development. It is evident that all countries must have the opportunity to realize economic growth in order to meet their essential needs. But the quality of growth is as important as its quantity. Is it promoting equity? Does it contribute to meeting the food, health care, safe water, shelter and educational needs of the developing countries, in particular the least developed countries? Does it lead to an environment which is conducive to a healthy and productive life, as advocated in principle 1 of the Rio Declaration? Does it take a precautionary approach to exploitation of the planet's ecosystems? Economic development, social development and environmental protection are mutually reinforcing components of sustainable development. The importance given to each of the components may vary from country to country.

7. The series of global conferences organized by the United Nations in the years since UNCED have all incorporated the fundamental principles and objectives of Agenda 21. The analysis and the plans of action emerging from these conferences are essential to our understanding of sustainable development and to ultimately achieving it.

8. The five years since UNCED have been characterized by accelerated "globalization", which refers to the growing interaction of countries in world trade, foreign direct investment and capital markets. The globalization process has been abetted by technological advances in transport and communications and by a rapid liberalization and deregulation of trade and capital flows, at both the national and international levels. Democracy has continued to spread and become more consolidated in countries where democratic forms of government have only recently been established. The end of the cold war has permitted an overall reduction in military expenditures as a share of gross domestic product (GDP). Yet preoccupation with fiscal consolidation in many developed market economies has led to some shrinkage of social safety nets and stagnation, if not outright reductions, in the volume of official development assistance (ODA). At the same time, regional conflicts, communal strife and civil war have visited unspeakable tragedy on millions of people - the very antithesis of sustainable development.

B. Economic growth

1. Economic performance

9. During the period 1992-1996 growth of GDP in the developing countries averaged about 5.3 per cent per year, compared with 3.1 per cent during the 1980s and 4.2 per cent during the period 1991-1992. This acceleration of GDP growth has permitted per capita GDP to rise by more than 3 per cent per year during the past four years; moreover, growth gradually spread as the number of countries exhibiting increasing per capita GDP rose from an average of 55 countries (containing about 83 per cent of the population living in developing countries) during the years 1990-1993 to 75 countries (accounting for 96 per cent of the population) in 1996. This pattern was not, however, shared by sub-Saharan African countries and least developed countries where per capita GDP continued to fall or stagnate through 1995. Worldwide, unequal income distribution within countries means that over 1.5 billion people did not share in economic growth and experienced declining per capita incomes in the 1990s.

10. This improved growth performance was due more to successful national policies than to external circumstances. Growth of world output was considerably slower during the first half of the 1990s compared with the decade of the 1980s. Consequently, during the period 1991-1993 growth in world trade was relatively slow and real commodity terms of trade continued the decline that began in 1989. These trends were reversed during the period 1994-1996 with the resumption of sustained growth in world output. Developing countries' export volumes increased more rapidly than world trade throughout the 1990s, averaging about 12 per cent per year during the period 1994-1996. Export volume growth was exceptional in Latin America, South and East Asia and China. The strengthening of regional trading arrangements was an important factor in explaining the export growth performance of developing countries as well as their continued penetration of markets for manufactured goods in developed market economies. Accompanying the GDP and export performance of developing countries and China, manufacturing value added has grown as well, increasing its share in world totals from about 15 per cent in 1991 to about 18 per cent in 1995.

2. Energy and material use

11. Economic growth and social development depend on energy use. World energy consumption has risen steadily and by 1993 was more than 40 per cent higher than in 1973. Global demand for energy continues to rise to meet the needs of a growing world population. The growth in per capita energy demand will continue because an increase in per capita energy is linked to the growth of the world economy, particularly for developing economies. Major increases in energy-generating capacity are still required in many developing countries if basic human needs are to be met. Over 2 billion people still have little or no access to public and/or commercial energy supplies.

12. Consumption of some materials is stabilizing in the industrialized countries, as a result of improved efficiency and economic restructuring, but consumption is rising rapidly in developing economies. However, reflecting the

very large differences in per capita income between regions, per capita consumption of commercial materials remains far higher in developed countries.

3. Development finance

13. Trends in international capital flows have been mixed. Net capital flows of private direct investment, portfolio investment and commercial bank lending have increased during the period 1992-1995, but have been concentrated in a relatively small number of developing countries. Net flows of official development assistance, on which least developed and several other low-income countries depend, after increasing in 1993, declined in real terms in both 1994 and 1995. These trends in ODA are clearly disappointing when viewed against the expectation at UNCED for new and additional net flows. Perhaps reflecting heightened concern for social development and environmental management, there has been, however, a small but noticeable increase in the proportion of official development finance flowing into these areas.

C. Social development

14. Data on social development, other than demographic data, are still not monitored as frequently or as comprehensively as economic data. For the most part, there is little data more recent than for 1993. Such data as are available generally show a small but positive change in a number of social indicators, and that this progress is evident in most world regions. In sub-Saharan Africa, however, a number of indicators show worsening trends during the 1990s. In many countries in transition also, several social indicators show worsening trends.

1. Demographic dynamics

15. According to the United Nations 1996 Revision[4] of global population and demographic estimates and projections, population calculations for the period 1990-1995 indicate that growth fell faster, national fertility declines were broader and deeper and migration flows larger than previous estimates had indicated. The latest medium fertility variant projection shows that the world population will stabilize at about 9.4 billion in 2050, almost half a billion lower than the figure projected in the 1994 Revision.[5]

2. Health

16. One measure of global health - life expectancy - increased slightly between 1985-1990 and 1990-1995. Increases were registered in most countries but 15 countries in sub-Saharan Africa and 17 countries with economies in transition experienced declines in life expectancy. Another important health indictor, per capita dietary energy supply (kilocalories), shows that in 1990-1992 as compared with the period 1979-1981, increases occurred in nearly all world regions. The exceptions were Eastern Europe and sub-Saharan Africa. Increases were largest in South, East and South-East Asia. However, the increase was negligible in

Latin America. Estimates of the prevalence of underweight children display similar patterns. Eight hundred and forty million people in the world suffer from malnutrition. A number of infectious diseases may be eradicated in the near future, given continued efforts, but others, notably malaria, are increasing.

17. Excessive environmental pollution is affecting the health of millions of people in urban agglomerations in developing countries. While the developing countries as a whole have narrowed the "health gap" with the industrialized countries in several important indicators, including life expectancy and infant and child mortality, the gap is widening between the least developed countries and other developing countries.

3. Drinking water and sanitation

18. In spite of efforts since the start of the International Drinking Water Supply and Sanitation Decade in 1981, some 20 per cent of the world's population lacks access to safe water and 50 per cent lacks access to safe sanitation. At any given time, an estimated 50 per cent of the population in developing countries is suffering from water-related diseases caused either directly by infection, or indirectly by disease-carrying organisms. The World Health Organization estimates that more than 5 million people die each year from diseases caused by unsafe drinking water and a lack of sanitation. In terms of the economic impact of poor water supply systems, it has been estimated that the provision of safe water supply, suitably located, could save over 10 million person-years of efforts in fetching water, mostly by women and female children, in developing countries. Water supplies in many cities of developing countries are intermittent, and an increasing number of peri-urban poor are without services and are often left at the mercy of private vendors charging exorbitant prices.

4. Education

19. Indicators of education such as enrolment ratios and adult literacy show improvement in all developing country regions. Between 1990 and 1993 combined gross enrolment ratios for all levels of education increased, with those of females increasing slightly more than those of males. However, increases were very slight in sub-Saharan Africa and in the least developed countries, groupings where gross enrolment ratios are very much lower than in other regions. Rates of illiteracy among adults appear to have declined steadily in all developing regions, including South Asia and sub-Saharan Africa; illiteracy rates for all developing countries averaged 29 per cent in 1993.

5. Poverty

20. Both economic growth and investment in human resources have impacts on the incidence of poverty; moreover, environmental degradation and poverty can interact in a vicious circle. Data on the incidence of poverty indicate that the percentage of those living in poverty in developing countries declined

slightly between 1990 and 1993 but all of the improvement was concentrated in East Asia and the Pacific, where the absolute number of poor declined as well. In other developing country regions the number of poor actually increased; globally, the numbers of people living in absolute poverty rose to 1.3 billion in 1993. Women continue to be disproportionately affected. In rural areas, the number of women in absolute poverty rose by nearly 50 per cent in the past two decades and they now constitute a substantial majority of the world's poor.

D. Environmental sustainability

21. Services provided by the environment are essential for economic activity, human health and the preservation of life itself. Imprudent depletion or degradation of natural resources or exceeding the capacity of air, soil and water to absorb pollutants will undermine long-term prospects for economic growth just as surely as will failure to maintain and increase stocks of physical capital or failure to invest in human development.

1. Impacts of energy use

22. Current forms of energy production and use, primarily based on fossil fuels, have serious adverse effects on the environment: emissions contaminate air, water and soil and contribute to global warming. Developed market economies have achieved a significant reduction in energy intensity due to improvements in generation and end-use efficiency in many socio-economic sectors. However, the increased volume of economic activity has offset these gains, and emissions of carbon dioxide continue to rise. Experiences in developing countries have varied considerably, even among those countries within the same region, because of the significant differences in their resources base, energy demand structures, economic situation, technological capacity and population and development strategy.

23. Most developed countries, and a number of middle-income developing countries, have experienced significant reductions in some other energy-related emissions, notably sulphur dioxide. The resulting improvements in local air and water quality can be attributed both to technological change responding to the operation of market forces, and to increasingly stringent regulation of ambient quality standards and emissions, especially from motor vehicles.

2. Freshwater

24. The analysis carried out under the Comprehensive Assessment of the Freshwater Resources of the World gives rise to serious concerns as to the sustainability of current pathways of water resources development and utilization in many developed and developing countries alike. Global demand for water has increased dramatically over the past century and it is estimated that more than 8 per cent of the world's population now lives in countries that are highly water stressed and another 25 per cent in countries that are experiencing moderate to high water stress. If current trends in water use persist, two

thirds of the world's population could be living in countries experiencing moderate or high water stress by 2025.

25. The present situation and current trends have serious implications in terms of economic development and food production. Unless managed with a view to achieving much greater efficiency, for which there is considerable potential, water resources could become a serious factor limiting socio-economic development in many developing countries. Efforts to increase efficiency and maximize economic benefits will tend to shift water users away from low value products. This, in turn, will have a serious impact on poor farmers operating inefficient irrigation schemes unless policies are designed and implemented to mitigate the impact of such a shift.

26. In addition, a number of developed countries are facing stressful conditions with regard to the utilization of their water resources, in many cases due to deteriorating quality. Freshwater reserves continue to be used as a sink for the dumping of wastes from urban and industrial sources, agricultural chemicals and other human activities. Current estimates indicate, for instance, that about 90 per cent of waste waters from urban areas are discharged without any treatment in many developing countries. Altogether, water quality has degraded rapidly, and in some regions has become so bad that groundwater is not suitable even for industrial use.

3. Soil quality and food production

27. The most recent comprehensive survey of soil degradation (GLASOD) indicates that faulty agricultural practices are a significant cause of soil degradation; examples include nutrient mining due to cropping intensification, insufficient fertilizer inputs, erosion and overgrazing by livestock. As much as 10 per cent of the earth's vegetated surface is now at least moderately degraded. Continued degradation of the agricultural land base will have serious implications for future food security at the local level.

28. It is expected that about two thirds of the increases in agricultural production required to meet projected increases in effective demand will come as a result of improved yields from land currently under cultivation in developing countries, much of which is irrigated. In Africa and Latin America and the Caribbean, increases in yields are expected to contribute upwards of 50 per cent of production increases. An additional 21 per cent of the increase in production is expected to be achieved through a projected expansion of harvested areas, particularly in sub-Saharan Africa, Latin America and East Asia. Of the projected 124 million hectares in new harvested areas, new irrigated lands are viewed as being limited to 45 million hectares. Increases in cropping intensity are expected to contribute the remaining 13 per cent of the total increases in food production.

29. While the medium-term prospects for increasing food production are good, trends in soil quality and the management of irrigated land raise serious questions about longer-term sustainability. It is estimated that about

20 per cent of the world's 250 million hectares of irrigated land are already degraded to the point where crop production is significantly reduced.

4. Forest cover

30. According to the Food and Agriculture Organization of the United Nations (FAO) in the State of the World's Forests, 1995, deforestation and degradation remain the major issues. For the period 1980-1990, the annual estimated loss in natural forest area is 12.1 million hectares. Disaggregated estimates are as follows: global change in forests and other wooded lands was -10.0 million hectares per year; natural forest loss in developing countries, 16.3 million hectares per year; increase in plantations in developing countries, 3.2 million hectares per year. The rates and causes of deforestation differ greatly between countries and regions; determining factors include population density and growth rates, levels and rates of development, the structure of property rights and cultural systems. Rates of tropical deforestation increased in each of the past three decades in all tropical regions and are currently highest in Asia. There is increasing concern about the decline in forest quality associated with intensive use of forests and unregulated access.

31. The largest losses of forest area are taking place in the tropical moist deciduous forests, the zone best suited to human settlement and agriculture; recent estimates suggest that nearly two thirds of tropical deforestation worldwide is due to farmers clearing land for agriculture. A growing proportion of commercial wood consumption needs in developing countries appears to be coming from plantations which, when well managed, are proving highly productive. In temperate developing countries, increases in plantation forest exceeded the declines in natural forests. There appears to have been a net gain in area of forest and other wooded land in most regions.

5. The marine environment and fisheries

32. Coastal ecosystems, including wetlands, tidal flats, saltwater marshes, mangrove swamps coastal nursery areas and the flora and fauna that depend on them, are particularly at risk from industrial pollution and urban land conversion. Coastal urban centres are already home to approximately 1 billion people worldwide and are experiencing unprecedented growth, much of it in developing countries. According to a recent study undertaken by the World Resources Institute, about half the world's coasts are threatened by development-related activities. The harmful effects of coastal degradation are often felt first by subsistence fishers and small-scale fleets which operate close to shore. Wider impacts include intensified coastal erosion, decreased protection from storm damage and loss of biodiversity.

33. The marine fisheries account for about 82 per cent of the total global fish harvest. The marine harvest has continued to increase slowly since 1970 despite a small decrease in early 1990; the additional production is coming mainly from highly fluctuating small pelagic wild resources and marine and coastal aquaculture. According to a new assessment made by FAO in late 1996, 25 per cent of the world's marine fisheries are being fished at their level of

maximum productivity and 35 per cent are overfished (yields are declining). In order to maintain current per capita consumption of fish, global fish harvests (110 million tons in 1994) must be increased; FAO estimates that much of the increase must come from mainly inland aquaculture. This expansion is not without risk, since aquaculture is a known source of water pollution, wetland loss and mangrove swamp destruction. Expansion will also be constrained by land-based pollution.

6. Biodiversity

34. Biodiversity is increasingly under threat from development, which destroys or degrades natural habitats, and pollution from a variety of sources. The first comprehensive global assessment of biodiversity was released in 1995 at the second meeting of the Conference of the Parties to the Convention on Biological Diversity. It put the total number of species at close to 14 million and found that between 1 and 11 per cent of the world's species per decade may be threatened by extinction. Major threats to species are related to threats to the ecosystems that support them from both development and pollution. There is, thus, a direct link to the forest agenda. Coastal ecosystems, which host a very large proportion of marine species, are at great risk, with perhaps one third of the world's coasts at high potential risk of degradation and another 17 per cent at moderate risk. FAO estimates that the rural poor in developing countries depend upon biological resources to meet about 90 per cent of their needs; the social and economic value of biodiversity is thus very high.

7. Waste and hazardous materials

35. Domestic and industrial waste production continues to increase in both absolute and per capita terms, worldwide. In the developed world, per capita waste generation has increased threefold over the past 20 years; in developing countries, it is highly likely that waste generation will double during the next decade. The level of awareness regarding the health and environmental impacts of inadequate waste disposal remains rather poor; poor sanitation and waste management infrastructure is still one of the principal causes of death and disability for the urban poor.

36. Toxification from dissipative use of modern materials has emerged as an issue of concern. Approximately 100,000 chemicals are now in commercial use and their potential impacts on human health and ecological function represent largely unknown risks. Persistent organic pollutants are now so widely distributed by air and ocean currents that they are found in the tissues of people and wildlife everywhere; they are of particular concern because of their high levels of toxicity and persistence in the environment. Pollution from heavy metals, especially from their use in industry and mining, is also creating serious health consequences in many parts of the world. Incidents and accidents involving uncontrolled radioactive sources continue to increase. Particular risks are posed by the legacy of contaminated areas left from military activities involving nuclear materials.

II. APPRAISAL OF PROGRESS ACHIEVED SINCE THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

37. Since 1992, sustainable development has been more widely accepted as an integrating concept that seeks to unify and bring together economic, social and environmental issues in a participatory process of decision-making. The years since UNCED have seen a growing consensus on the need for integrated approaches, as advocated in Agenda 21, and real progress has been made in establishing a conceptual framework within which planning for sustainable development can take place. Five years after the Conference, it is clear that the policy process is far more advanced in some areas than others. Some are still at the stage of defining problems and agreeing on necessary responses. Others have moved to the stage of target-setting and deployment of new policy instruments to achieve change. In a few cases, intervention has already brought measurable results.

38. The present section discusses the development of integrated strategies for sustainable development at various levels of government and in the outcomes of major international conferences. It then evaluates recent changes in international trade regimes and assesses progress towards changing production and consumption patterns, a key strategic approach to achieving sustainable development identified in Agenda 21. Lastly, it evaluates progress in the management of natural resources, the involvement of various actors and means of implementation.

A. Developing strategies for sustainable development

39. Following UNCED, a number of related global plans and strategies have been agreed which attempt to translate the principles of Agenda 21 into practice. An important example is the Programme of Action adopted at the Global Conference on the Sustainable Development of Small Island Developing States (Bridgetown, Barbados, 1994). The Programme of Action identifies a number of important priority areas for sustainable development in small island developing States (see E/CN.17/1997/14).

40. At the regional level, the past five years have seen a number of initiatives to formulate regional sustainable development strategies or action plans and to establish mechanisms for regional cooperation in implementing such initiatives. They have often been launched as the result of regional summits or ministerial meetings and are intended to translate global issues into regional ones. An example is the Regional Action Programme on Environmentally Sound and Sustainable Development in Asia and the Pacific, 1996-2000. In addition, integrated plans have been developed and adopted for smaller regions that share or feel responsible for common resources or ecosystems. Examples are the plans for the Arctic, the Baltic Sea and, recently initiated, the Sustainable Development Plan for the Mediterranean.

41. At the national level, countries ranging from China, which launched the first national Agenda 21, to Swaziland and the United Kingdom of Great Britain and Northern Ireland, have produced national sustainable development strategies, national conservation strategies or environmental action plans. Developing countries have made particular progress in this regard. In some cases, this has

been done with the assistance of the World Bank, the United Nations Development Programme (UNDP), the International Union for Conservation of Nature and Natural Resources (IUCN) and some bilateral donors. Over 40 African countries have some sort of coordinating mechanism to produce such plans. Environmental factors have also been incorporated into macroeconomic strategy.

42. The Development Assistance Committee of the Organisation for Economic Cooperation and Development (OECD) has recognized the strategic importance of sustainable development strategies. It has set the target that by the year 2005 national strategies for sustainable development are to be adopted in all countries, so as to ensure that current trends in the loss of environmental resources are effectively reversed at both the global and national levels by the year 2015.

43. Further progress in the effort to develop sustainable development strategies must take account of such constraining factors as: (i) Governments, particularly of developing countries, are overloaded with requests for various types of strategies, plans and schemes to satisfy the requirements of international banks, lending agencies and international organizations, which have not been adequately coordinated or prioritized; (ii) not all governing bodies of international organizations, even within the United Nations system, have the same understanding of the concept of sustainable development - some have adopted programmes of environmentally sustainable development, others have called for sustainable human development, while others have talked of conservation or other types of environmental plans; this has led to some confusion regarding the core issues of sustainable development; (iii) international agreements are often being reached faster than countries can respond effectively to agreed requirements; (iv) Governments frequently lack the financial and staff resources to implement the different international conferences, conventions and agreements they have agreed to or signed; (v) capacity-building efforts should not stop after sustainable development strategies have been formulated, since the implementation of such strategies requires continuous support.

44. At the local level there has been a positive trend in the number of cities around the world which have formulated and are implementing local Agenda 21s. Currently almost 2,000 local governments from 49 countries are pursuing local Agenda 21 action plans through official planning processes in partnership with the voluntary and private sectors in their communities. The "sustainable cities" process, which started in 1992, has been boosted by the United Nations Conference on Human Settlements (Habitat II).

B. Global conferences

45. Since 1992, a number of major United Nations conferences have made policy advances and strengthened commitments to social aspects of sustainable development. The International Conference on Population and Development (Cairo, 1994) emphasized the importance of broad-based economic and social development, including expanded education, health care and economic opportunities, especially for women, in reducing desired family size and thereby reducing population growth. The World Summit for Social Development (Copenhagen, 1995) emphasized

that social development requires not just economic growth, but also the eradication of poverty, full employment and social integration. The Fourth World Conference on Women (Beijing, 1995) pointed out that many activities crucial to sustainable development are largely the responsibility of women, that women disproportionately bear many of the burdens of environmental degradation, but that women remain largely absent at all levels of policy formulation and decision-making and that unless women's contribution to environmental management is recognized and supported, sustainable development will remain an elusive goal. The United Nations Conference on Trade and Development (UNCTAD), at its ninth session (Midrand, 1996), highlighted the potential benefits of globalization and trade liberalization to developing countries but warned of the risks of marginalization of poorer countries unable to capitalize on new opportunities. Habitat II (Istanbul, 1996) raised global awareness of the key role of human settlements in sustainable development as the majority of the global population will be living in cities in the next century, thus increasing the urgency of facing the growing social, economic and environmental problems of cities. Finally, the World Food Summit (Rome, 1996) called for renewed effort to combat hunger, which persists in the poorer regions of the world and is likely to increase in spite of food surpluses at the global level. All of these conferences adopted plans of action that complement Agenda 21, superseding it in some respects. A number of bodies within and outside the United Nations system, notably the Economic and Social Council, are coordinating the implementation of those plans of action.

C. International trade, economic growth and sustainable development

46. Globalization and liberalization have increased the potential for international trade to become an unprecedented engine of growth and an important mechanism for integrating countries into the global economy. A good number of developing countries have seized the opportunities and seen the rapid growth of their economies. Not all countries, however, have been in a position to seize these new trading opportunities. There is a real risk that these countries, especially the least developed among them, and other structurally weak economies, could become further marginalized. At the same time, it is widely recognized that the integration and fuller participation of these and other developing countries and countries in transition in the global economy would contribute substantially to the expansion of world trade, serving the overall objectives of world economic growth in the context of sustainable development.

47. The completion of the Uruguay Round of multilateral trade negotiations was a major step by the international community towards the expansion of the rule-based international trading system and advancing liberalization in international trade and creating a more secure trading environment. The Uruguay Round furthered and consolidated the process of trade liberalization through improvements in market access and more stringent disciplines over trade measures. It set out a system of multilateral trade obligations subject to a common dispute settlement mechanism which will place most countries at virtually the same level of multilateral obligation within a relatively short time. Most of the multilateral trade agreements contain their own built-in agenda for review, possible revision and negotiation of future commitments.

48. It has been recognized that, during the reform programme leading to greater liberalization of trade in agriculture, least developed and net food-importing developing countries may experience negative effects in terms of the availability of adequate supplies of basic foodstuffs from external sources on reasonable terms and conditions, including short-term difficulties in financing normal levels of commercial imports of basic foodstuffs. The plight of the least developed countries and the need to ensure their effective participation in the world trading system is also recognized.

49. The least developed countries, particularly those in Africa, and other developing countries remain constrained by weak supply capabilities and are unable to benefit from trade. Marginalization, both among and within countries, has been exacerbated. Too many people continue to live in dire poverty.

50. Intergovernmental deliberations of UNCTAD, the World Trade Organization (WTO), the Commission on Sustainable Development and other international organizations have resulted in a better understanding of the relationship between trade, environment and development. The post-UNCED debate has focused on, and will continue to explore, the scope of the complementarities between trade liberalization, economic development and environmental protection. Governments have taken appropriate steps to ensure that trade and environment are now firmly incorporated into the work programmes of WTO, UNCTAD and other relevant international organizations. The breadth and complexity of the issues covered in the work programme of the Committee on Trade and Environment (CTE) of WTO shows that further work needs to be undertaken and ministers have directed CTE to continue work on all items of its agenda, as contained in its report, building on the work accomplished thus far. Similarly, at the ninth session of UNCTAD, Governments mandated UNCTAD to continue carrying out its special role in promoting the integration of trade, environment and development.

51. The Singapore Ministerial Declaration notes that full implementation of the WTO Agreements will make an important contribution to achieving the objectives of sustainable development. The agenda is becoming more balanced and integrated by enlarging the development dimension on most issues. Nevertheless, there is a perception that mutual understanding between trade, environment and development communities is still evolving and that a larger consensus still needs to be built on a common agenda to strengthen mutual supportiveness of trade, environment and development policies. The Singapore Ministerial Declaration stressed the importance of policy coordination at the national level in the area of trade and environment.

D. Changing production and consumption patterns

52. Changing consumption and production patterns in the context of sustainable development addresses a broad range of issues, including new concepts of economic growth and prosperity, efficient use of natural resources, reducing waste, environmentally sound pricing, product policy and technology transfer. Environment and development policy-making aimed at changing consumption and production patterns has made noticeable progress, in particular in cooperation with international organizations and major groups, including business and industry, local authorities and the research community. The issue is now

prominently placed on the international policy agenda and a number of countries have taken a lead role in facilitating and developing international debate.

53. At the conceptual level, important work has helped to define promising approaches to changing consumption and production patterns, in particular the internalization of environmental costs in goods and services, improved efficiency in energy and materials use and demand-side management. While economic instruments to internalize costs remain difficult to implement, progress has been made in improving efficiency and implementing demand-side management schemes in many industrialized countries. This trend has been promoted by both environmental considerations and the financial benefits of reduced resource and waste flows. Increased attention is being paid by policy makers to social instruments and the provision of adequate infrastructure and facilities, in order to enable individuals to modify their behaviour towards less environmentally damaging patterns. Examples include product labelling, information campaigns and improved recycling schemes.

54. The most promising developments may be seen in the increased participation of non-governmental organizations, business, trade unions, local communities, academics and consumer organizations in efforts to define sustainable levels of consumption and to develop practical programmes of action. However, much work remains to be done in furthering understanding of the possible impacts of changed consumption and production patterns in industrialized countries on the development needs of developing countries.

E. Natural resource management

1. The atmosphere

55. Intensive research has led to scientific consensus within the Intergovernmental Panel on Climate Change (IPCC) that human activities are having a discernible influence on the global climate. The United Nations Framework Convention on Climate Change[2] was one of the key commitments to emerge from UNCED and it has since been ratified by more than 150 States. Many of the parties listed in annex I to the Convention (OECD countries and countries with economies in transition) have developed climate change action plans involving policy measures, and in some cases targets, for stabilizing or reducing emissions of carbon dioxide and other greenhouse gases. The Montreal Protocol on Substances that Deplete the Ozone Layer, and its subsequent amendments, have already proved effective in reducing emissions of chlorofluorocarbons and have been described as a model for dealing with atmosphere-related issues and for constructive cooperation between Governments, industry, scientists and non-governmental organizations.

56. Despite this progress, CO_2 emissions in most industrialized countries have risen over the past four years and very few countries are likely to stabilize their greenhouse gas (GHG) emissions at 1990 levels by the year 2000. The focus until now has been on technological solutions to increase energy efficiency, which have often been offset by the volume of economic activity. There is still little movement towards strong financial mechanisms that would make fundamental

changes in energy consumption possible and no significant new investments have been forthcoming in promoting renewable energy systems.

57. A positive development is the worldwide trend towards increasing competition in the power sector. This will be helpful to small, high efficiency and more economical co-generation systems, while discouraging large, less efficient and less economical stand-alone steam turbine-based power plants. There has also been a noticeable shift in government R&D budgets globally from the fossil energy sector to energy conservation and renewable energy. A further promising initiative is the World Programme on Renewable Energies, launched at the World Solar Summit in Harare in 1996.

58. Transport has become the single largest sectoral end-use of energy in the OECD member countries and is the fastest growing end-use in both developed and developing countries. Transport-related emissions, particularly lead, volatile organic compounds (VOCs) and small particulates now constitute a serious health hazard in many cities worldwide. Initiatives of the Commission on Sustainable Development and international organizations have started the process of phasing out lead in gasoline worldwide. Research continues on alternative vehicle technology, including electric and hybrid vehicles and cleaner fuels, but persistently low fossil fuel prices have discouraged serious development and marketing efforts. Awareness is growing among authorities and consumers of the financial and health costs associated with high dependence on motor vehicles and urban congestion but, to date, there has been little movement towards strong financial mechanisms and/or economic incentives to encourage alternative means of transportation. Regulation, however, is being tightened in most developed countries and increasingly stringent controls on vehicle emissions are being introduced, notably in Scandinavia, the European Union and the United States of America.

2. Land

59. Land management involves a range of interrelated issues, including land-use planning and employment, habitat preservation, the maintenance of environmental services such as flood control and the quality of soils and their fitness for agricultural production. As competition for land increases, trade-offs between alternative uses and functions of available land will become more critical in economic, social and environmental decision-making.

60. The recognition of the need for an integrated approach to land-use management has increased and was stressed by the Commission on Sustainable Development at its third session. Developed countries have made some progress towards integrating agricultural and environmental policies, delinking agricultural support from production incentives and promoting sustainable agricultural practices. However, there is still a lack of comprehensive rural policies that bring together production, environmental and rural welfare objectives. Land resource planning and management, especially at the implementation phase, are complex tasks requiring the participation of different national-level ministries as well as regional and local authorities and the private sector. More progress is required to develop institutional arrangements

which facilitate joint public-private activities and improve transparency of land management.

61. There is growing recognition of the need for greater involvement of all stakeholders concerned in land-use management decisions and a useful body of experience with participation programmes, especially in developing countries, is now being built up by non-governmental organizations, development agencies and Governments. Many practical programmes relating to programme design and implementation have been initiated or expanded since UNCED and a number of countries have made greater efforts to provide the means for people to express their views on land-use decisions. This process is aided by land resources and development information systems, which have developed rapidly in recent years. Geographical Information Systems are being established in both developed and developing countries, sometimes at the village level.

62. In developing countries, there is a continuing dilemma over production/income and environmental goals. The strategy of sustainably intensifying already converted land of greatest production potential - in order to reduce pressure for expansion into marginal lands - is beginning to be more widely accepted and introduced. Nevertheless, the importance of non-farm, rural industry promoting policies for employment, especially for areas of lower agricultural potential, are generally not well reflected in rural development and environment strategies.

63. Understanding of the extent and severity of degradation of productive land has been improved by the survey conducted by the International Soil Reference and Information Centre (the GLASOD survey). Following calls for action at UNCED, the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa[1] was opened for signature in October 1994 and entered into force in December 1996. Implementing actions to improve soil management require a complex of measures involving, according to national circumstances, rationalization of a secure land tenure system, improving farmer education through information and extension programmes, upgrading technology and providing an enabling socio-economic framework which encourages producers to manage their land sustainably.

64. The threat posed to long-term food security by soil degradation was also emphasized at the World Food Summit of November 1996. The Rome Declaration on World Food Security adopted at the Summit states that increased food production must be undertaken within the framework of sustainable management of natural resources and acknowledges the importance for food security of sustainable agricultural practices, fisheries, forestry and rural development. The World Food Summit Plan of Action calls for an ongoing effort to eradicate hunger in all countries, with a minimum target of halving the number of undernourished people by 2015.

65. Land-use conflicts between agriculture, forest cover and urban uses are sharpening, especially in moist tropical areas suitable for the expansion of human activity. The UNCED statement of Forest Principles has helped to encourage global approaches to forest management. The International Tropical Timber Agreement was renegotiated in 1993. A large number of international

meetings of experts, many co-sponsored by developing and developed countries, have greatly enriched the understanding of sustainable forest management and of approaches to its implementation. In a major step forward, the Commission on Sustainable Development established the Ad Hoc Intergovernmental Panel on Forests with a two-year mandate to generate consensus and propose actions for implementation of the Forest Principles and other forest-related recommendations of UNCED. The Panel will submit its report to the Commission at its present session. Without pre-empting the outcome of the Panel, it can be said that notable progress has been made towards international consensus on basic principles and operational guidelines for national forest programmes, forest assessment and criteria and indicators for sustainable forest management.

3. Freshwater

66. The recently completed Comprehensive Assessment of the Freshwater Resources of the World has provided new insights into the current status of freshwater availability. It has made clear the intimate relationship between water quantity (supply) and quality and the risks of poor water management. In many developing countries, water scarcity, exacerbated by growing pollution from industry, agriculture and human settlements, constitutes perhaps the most significant threat to socio-economic development and human health.

67. Some progress has been made in developing an integrated approach to water use and more rational and equitable allocation of water among various users. This approach is sometimes characterized by management at the level of river basins or watershed areas and by the participation of users and local communities in the decision-making process, including decisions related to financing of infrastructure. The role of women in water resources management is being increasingly recognized at the national and local levels.

68. Two of the most important success stories in relation to water quality include the development, application and monitoring of drinking water quality guidelines and progress in the eradication of guinea-worm infection. Efforts to improve public water supplies have been ongoing since UNCED and data received from national laboratories indicate that capacities for monitoring water quality are gradually improving. However, water infrastructure in many countries remains wholly inadequate to monitor and control pollution and to protect human health, and current levels of investment do not appear adequate to remedy the situation.

69. A major impediment to the implementation of Agenda 21 objectives remains the fragmentation of responsibilities and mandates for water resources management at the national level and the lack of attention that water receives in comparison with other sectors. The significant economic and social costs associated with poor water quality and inappropriate allocation have yet to be fully realized in decision-making. The lack of financial and human resources also continues to be a major constraint in the improvement of water management capabilities, particularly in developing countries.

70. However, a promising approach is being developed under the Global Water Partnership, an international mechanism which aims to translate the consensus on

water management into responsive, coherent services to developing countries, with the emphasis on local implementation. The Partnership will support integrated water resources management programmes by collaborating with Governments and existing networks, developing new arrangements, and encouraging all stakeholders to adopt consistent policies and programmes and to share information and experience.

4. Oceans and seas

71. Considerable progress has been made in recent intergovernmental negotiations related to oceans and seas. The 1982 United Nations Convention on the Law of the Sea, which entered into force in 1994, and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks,[10] which will enter into force after ratification by 30 countries, represent major contributions to the goal of long-term conservation and sustainable use of fish stocks.

72. The adoption, since UNCED, of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (Washington, D.C., 1995)[11] is another important step towards more integrated management of the world's oceans. The proposals for institutional arrangements for the implementation of the Global Programme of Action are currently being reviewed by Governments. They provide a broad framework for cooperation among various United Nations and non-United Nations entities, in particular in the establishment of a clearing-house mechanism and an assessment of the state of oceans and coastal areas. The Global Programme of Action thus complements the Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter of 1972 (London Dumping Convention), amended in November 1996.

73. International management of fisheries, strengthened by the entry into force of the United Nations Conference on the Law of the Sea, has improved further with the adoption of General Assembly resolution 46/215, in which the Assembly called for a global moratorium on all large-scale pelagic drift-net fishing on the high seas and with the 1995 agreement reached by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks.[10] These processes, together with the requirements of Agenda 21 for fisheries, were consolidated in the FAO voluntary Code of Conduct for Responsible Fisheries adopted in 1995. Dependence on aquaculture (mainly inland) for an important part of future net increases in fish consumption will require improved management of freshwater resources, protection of aquaculture sites from industrial and urban pollution, as well as protection of coastal areas, wetlands and mangrove swamps from irresponsible coastal aquaculture practices. The need to limit access to marine fishery resources and to establish forms of property and use rights to manage a gradual return to sustainable levels of harvest is gaining recognition, and some countries have begun using individual transferable quotas (ITQs). The International Coral Reef Initiative has addressed the importance of these vulnerable ecosystems and concrete steps are being taken towards implementation.

74. Institutional arrangements for ocean management remain fragmented, however, with problematic divisions of responsibility between areas under national jurisdiction and international waters. It is also evident that, while important agreements have been concluded at the global level, implementation will be better addressed at the regional level, where the management mandate and capacity of existing organizations needs strengthening. Approximately 80 per cent of marine pollution still stems directly from human activity on land. Protection of the economic and ecological value of coastal ecosystems, as well as of human health, will not be possible without the effective control of pollution from rivers and lakes, and treatment of wastewater from cities which currently drain their urban and industrial wastes directly into coastal systems.

5. Biodiversity

75. The Convention on Biological Diversity," which entered into force in December 1993, has been signed by 163 States and one regional economic integration organization so far. A Subsidiary Body on Scientific, Technical and Technological Advice, as called for in the Convention, has been established. A clearing-house mechanism has been established and is in its pilot phase. It is accessible to all countries and will support implementation of the Convention at the national level. National strategies, plans or programmes for the conservation and sustainable use of biological diversity are under preparation in many countries.

76. At the second meeting of the Conference of the Parties to the Convention, in 1995, UNEP released the Global Biodiversity Assessment which furthered consensus on current trends in biodiversity, means of approaching the problem and possible solutions. In its contribution to the special session of the General Assembly, the Conference of the Parties to the Convention noted that, in spite of the progress made in implementing the objectives of the Convention, Parties remain aware that biological diversity is being destroyed by human activities at unprecedented rates. Despite progress since UNCED, knowledge of biodiversity remains very limited.

77. A Global Strategy for Management of Farm Animal Genetic Resources has been launched with a mission to document existing animal genetic resources, develop and improve their utility to achieve food security, maintain those that represent unique genetic material and that are threatened, and facilitate access to animal genetic resources important to food and agriculture. At its third meeting, in 1996, the Conference of the Parties to the Convention decided to establish a multi-year programme of activities on agricultural biodiversity aiming, inter alia, at promoting the positive and mitigating the negative effects of agricultural practices on agricultural biodiversity.

78. Work on biosafety has progressed. UNEP issued technical guidelines on biosafety, and under the Convention a Working Group has been established to develop a protocol on biosafety. The International Council of Scientific Unions (ICSU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have recently launched an international scientific programme on biodiversity, entitled Diversitas. The Jakarta Mandate, adopted at the second meeting of the Conference of the Parties to the Convention, provides a framework

for actin on marine and coastal biological diversity. A framework for global action which promotes support for and cooperation with other international bodies was also adopted at the second meeting. At its third meeting, the Conference of the Parties to the Convention elaborated further on actions to be undertaken to advance the implementation of the Convention. It highlighted, among other things, agro-biodiversity, forests and inland water ecosystems.

F. Addressing the risks related to wastes and hazardous materials

79. The International Conference on Chemical Safety was organized by the International Programme on Chemical Safety and convened in Stockholm in April 1994. The Conference, which was attended by 110 countries, 10 international organizations and 27 non-governmental organizations, established the Intergovernmental Forum on Chemical Safety, which is mandated to seek consensus among Governments on the development of strategies for the implementation of chapter 19 of Agenda 21 and to undertake periodic reviews of these strategies. The second meeting of the Forum will take place at Ottawa in February 1997.

80. A number of international organizations, namely, FAO, the International Atomic Energy Agency (IAEA), the International Labour Organization (ILO) and the Nuclear Energy Agency (NEA) of OECD, the Pan American Health Organization (PAHO) and the World Health Organization (WHO) have jointly developed and recommended for the use by Governments and industry the International Basic Safety Standards for Protection Against Ionizing Radiation and for the Safety of Radioactive Sources. Likewise, revised Regulations for the Safe Transportation of Radioactive Material have been set by IAEA.

81. In the field of prior informed consent (PIC), UNEP and FAO are jointly implementing the PIC procedure and negotiations are well under way towards a PIC convention. Two meetings of the Intergovernmental Negotiating Committee were held in 1996 and a diplomatic conference is expected to be held in 1997. The number of countries participating in the voluntary procedure has increased to 148, with 17 chemicals subject to the procedure.

G. Role of Government and major groups

82. Agenda 21 makes clear that sustainable development cannot be delivered by Governments alone. It stresses the role of the private sector and other groups in civil society, which have a prominent place in Agenda 21. Experience since 1992 has reinforced the need for such an approach. Globalization affects, and sometimes reduces, the ability of Governments to achieve desired outcomes. While Governments continue to provide the overall framework in which the private sector must operate, many important decisions are made by the private sector, especially by companies operating in an international context. Governments also have to ensure the provision of such basic social services as education and health care, at a time of increasing budget constraints. Practice has shown that detailed prescriptive regulation of the productive sectors is becoming less feasible, less appropriate and less effective. While globalization will have to

find a response in new forms of international decision-making, effective implementation of international and national policies requires decentralized and participatory decision-making processes.

1. Governments

83. Close to 150 countries have established national-level commissions or coordinating mechanisms designed to develop an integrated approach to sustainable development and to include a wide range of civil society sectors in the process of agenda setting and strategy building. More than 90 per cent of them have been established in response to UNCED, the majority in developing countries. In some countries, the national councils of sustainable development have been more political than substantive in nature. They tend to generate broad commitments with limited follow-up at the working level, where sectoral plans and strategies remain largely unaffected.

84. Some of the most promising developments have taken place at the level of cities and municipalities, where local Agenda 21 initiatives have predominated. These have been grass-roots expressions of concern and involvement rather than top-down planning exercises. In many cases local authorities have been reluctant to link their efforts to national action plans for fear that the agenda will then be imposed on them from above rather than flowing from local needs. A wide variety of successful cases have been reported in the past four years on these initiatives. The United Nations Centre for Human Settlements, as part of its preparations for Habitat II, developed, in cooperation with other partners, an extensive database of best practices related to sustainable development at the local level, which is now available on the Internet. Local-level strategies and plans have proved far more successful than those at the national level in terms of making a direct impact.

2. Parliaments

85. Parliaments in many countries have been actively involved in implementation of the commitments made at UNCED. Information thereon has been reported annually to the Commission on Sustainable Development by the Inter-Parliamentary Union (IPU), based on the outcome of an annual survey. IPU also adopted declarations relevant to sustainable development, for example, on finance and technology transfer and on conservation of world fish stocks.

3. International organizations

86. International cooperation can facilitate the transition towards sustainable development worldwide and support relevant action at the national level. This, together with the growing commitment of intergovernmental organizations and international institutions to the sustainable development agenda, has shown that the United Nations system, in partnership with other international bodies, can, in spite of a number of constraints, add significant value to the implementation of Agenda 21.

87. New forms of cooperation have also emerged at the regional level. They include cooperation between the United Nations regional commissions and representatives of global United Nations agencies and programmes at the regional level. A number of intergovernmental meetings have adopted political statements and action plans for sustainable development. They have been convened in association with both United Nations regional commissions and other regional organizations such as the Organization of American States (OAS), the Organization of African Unity (OAU), the South Pacific Regional Environment Programme (SPREP) and the Association of South-East Asian Nations (ASEAN). A new commission, the Indian Ocean Tuna Commission (IOTC), has been established under FAO for the management of tuna fisheries in the Indian Ocean. High profile ministerial conferences have played an important agenda-setting role and have helped to raise public and political awareness.

88. Regional economic arrangements have rapidly expanded to new countries and new policy areas and have continued to develop after the completion of the Uruguay Round of multilateral trade negotiations. For example, the three States members of the North American Free Trade Agreement (NAFTA) entered into a parallel agreement and established a Commission on Environmental Cooperation to implement it. This framework provides for citizen involvement in monitoring compliance with national environmental laws and regulations.

4. The private sector

89. Agenda 21 has proved to be the starting point for many new business initiatives with sustainability as their stated objective, with notable progress in the areas of joint industry/government partnerships and the development of innovative policy instruments, environmentally efficient technologies and products, and broader sustainability concerns regarding the relation of business and the wider community.

90. Considerations of cost-efficiency and effectiveness are encouraging Governments to supplement traditional regulatory approaches with a broader policy package including economic instruments and other strategies based on "Partnerships" between the private and public sectors. These instruments, which include environmental taxes and charges, environmental subsidies, environmental funds, negotiable emissions instruments, environmental performance bonds and voluntary agreements, are in use at some level in all regions of the world by both developed and developing country Governments.

91. Business and industry organizations are responding with the development and implementation of an increasing number of voluntary codes of conduct and environmental management systems which help firms to meet environmental performance standards without the need for detailed regulation. Environmental Management Systems (EMS) standards such as the ISO 14000 series and the European Union's Environmental Management and Audit Scheme (EMAS) and other national standards (such as the United Kingdom BS 7750) have contributed greatly to industry's adoption of environmental management and to the ability of Governments to match environmental legislation to industrial improvements in this area. The International Chamber of Commerce (ICC), UNEP, the United Nations Industrial Development Organization (UNIDO), UNCTAD and others are

assisting countries, especially developing countries, in building the capacity necessary to comply with these new standards, so that they can, inter alia, maintain or enhance their export opportunities.

92. Many larger companies have now moved beyond "end-of-pipe" pollution control to a more integrated cleaner production and life-cycle approach aimed at reducing the environmental impacts of the goods and services they provide. However, examples on the market are still limited to a relatively small number of product categories, notably recycled paper and tissue products, solvent-free paints and varnishes, cosmetics and more recyclable packaging. The concept of "eco-efficiency" (the production of goods and services with reduced throughput of energy and materials) is being actively promoted by organizations such as the World Business Council on Sustainable Development and is attracting growing interest from companies with the resources to implement technical and managerial change. However, limited progress has been achieved in addressing small and medium-sized enterprises. In both developed and developing countries they are in need of support if they are to manage the growing sustainability challenge posed by national and international environmental regulations, standards and voluntary codes that are developed by large companies.

5. Other major groups

93. The action-oriented participation of organized major groups has been particularly dynamic. They increasingly interact directly with national Governments and international organizations, including Convention secretariats and processes. Major group representatives have been active partners in promoting sustainable development among their members and the wider community. Trade unions are bringing sustainable development into the workplace. The scientific and technological communities play a vital role in diagnosing problems and developing response options. Local authorities, by virtue of the geographical focus of their activities, are an increasingly important component of the consultative process regarding local problems and solutions.

94. Youth have been active in promoting sustainable development as vital to their future, though they are still insufficiently included in decision-making at the national and local levels and lack information. Indigenous peoples and farmers are increasingly concerned about the impact of biodiversity and biotechnology issues on traditional values and property rights. Indigenous peoples have become active participants at the intergovernmental level in the context of the Convention on Biological Diversity and the need for protection of genetic resources. Following UNCED, the rights and roles of women in sustainable development have been further emphasized in other global conferences, particularly the Fourth World Conference on Women and the International Conference on Population and Development, and the need to empower women in this regard has been recognized. The rights and role of women are issues that have appeared in all the post-UNCED conferences.

95. Non-governmental organizations are very active in developing and implementing actions for sustainable development at the local and national levels. They increasingly act as implementing partners with national Governments and bilateral and multilateral aid organizations. Non-governmental

organizations do not always receive adequate financial support from national institutions and they do not have adequate access to international bodies. The role of non-governmental organizations needs to be enhanced if their full potential in helping to achieve sustainability is to be realized.

96. Despite many positive developments, the implementation of specific objectives in the major group chapters of Agenda 21 has not always achieved the level desired. For example, gender balance in decision-making has still not been achieved and national instruments to this effect are not being enforced. The situation of indigenous people continues to be a serious concern, with insufficient action being taken at the national level.

H. Means of implementation

97. A major strength of Agenda 21 lay in its identification of means of implementation with relevance to different economic sectoral activities. Approaches to policy implementation currently under development in these areas are key to building integrative strategies and instruments for sustainable development.

1. Financing sustainable development

98. Average ODA for the period 1993-1995 was lower than for the period 1990-1992, both in absolute value and as a percentage of GNP, and was the lowest it had been for 30 years. Only four countries achieved the goal of 0.7 per cent of GNP. These were Denmark, the Netherlands, Norway and Sweden. The decrease in ODA has been particularly critical for the poorest countries that have little access to other sources of external finance and private investment. It greatly limits the ability of Governments in most developing countries to undertake the social and environmental investments that do not otherwise attract private investments. Funds provided under the concessional lending arm of the World Bank, the International Development Association (IDA), have been replenished, indicating continued donor commitment to multilateral cooperation on poverty reduction, economic adjustment and growth and environmental sustainability, though resources are still not considered large enough. Clearly, the decline in ODA is not consistent with the expectations raised by UNCED, despite the efforts to find new and additional sources of internal finance through alternative mechanisms.

99. In the years since UNCED, the Bretton Woods institutions have increased their commitment to sustainable development, which has helped the provision of resources to poor developing countries for environmentally sound economic and social development. The interest of the World Bank in the environmental and social impacts of its projects in developing countries has grown substantially. From marginal concern for environmental issues before UNCED, the Bank's loan portfolio for environmental projects reached US$ 12 billion in 1996 and it has begun to undertake environmental and social assessments of Bank-financed projects.

100. The Global Environment Facility (GEF) was launched as a pilot programme in 1991 to assist developing countries and countries with economies in transition in pursuit of global benefits in the four focal areas of biodiversity, climate change, international waters, and ozone layer depletion. During the pilot phase, an estimated US$ 730 million was allocated to fund a work programme of 115 global, regional and country projects. In March 1994, an agreement was reached on restructuring and replenishing the Facility as a major source for global environment funding. However, the formulation of proposals and modalities for implementing the projects to be funded by the Facility has often been time-consuming and complicated. Although much work has gone into the preparation of guidelines and proposals, there is room for further improvement in the disbursement of funds in support of GEF projects.

101. The most notable progress in financing sustainable development since UNCED has been the increase in private capital flows to developing countries. The average annual private capital flow to developing countries from OECD countries in the two-year period from 1993 to 1994 was US$ 102 billion or about 60 per cent of total flows from OECD to developing countries. More importantly, about 42 per cent of all private flows from OECD to developing countries in the same period were foreign direct investments, the type of investment that is more stable and reliable in the long term.

102. Despite the increase of private capital flows to middle-level developing countries, the poorest countries have not obtained the necessary flows of private capital and their ratio of foreign direct investment to GNP still remains about half that of the middle-income developing countries.

103. The debt-to-export ratio, the main indicator of an economy's ability to repay its debt, of many developing countries has substantially improved since 1992. The debt problems of the 1980s of most middle-income developing countries have been alleviated through a combination of sound economic policies, liberalization of international trade and capital movements, rescheduling of bilateral external debt and the introduction of new instruments such as Brady-type and debt conversion programmes (of which debt-equity swaps have been the most successful, particularly in Latin America until 1994).

104. However, the debt burden of heavily indebted low-income countries has increased during the past decade, which has hampered their development potential. The initiative taken by the International Monetary Fund (IMF) and the World Bank in April 1996 to design a comprehensive external debt alleviation package targeting these countries is especially welcome.

2. Transferring technology

105. Many goals of Agenda 21 depend for their achievement on the introduction of cleaner and more efficient technologies (environmentally sound technologies (ESTs)). The Commission on Sustainable Development, at its third session, adopted a work programme which focuses on access to and dissemination of information, capacity-building for managing technological change and financial and partnership arrangements. Since UNCED, workshops and studies have been conducted and information and awareness-raising campaigns initiated at the

national, regional and international levels. They are intended to stimulate the demand for ESTs and thus promote their transfer. A number of developed and developing countries and economies in transition have adopted policies and implemented programmes which support a gradual shift in use from "end-of-pipe" (or clean-up) technologies and equipment to integrated technological solutions in production processes and products. National cleaner production centres that can facilitate the transition towards cleaner production have been established in nine countries with the support of UNIDO and UNEP.

106. Although no concrete data are available, there is overall recognition that the level of technology and technology-related investments from public and private sources in developed countries directed towards developing countries has not, in general, been realized as envisaged at UNCED. Increased private flows have led to investments in industry and technology in some developing countries and economies in transition. However, many developing countries have been left behind, which has slowed the process of technological change in these countries.

107. More information is needed from both national and local governments and the private sector regarding the effectiveness of policies to facilitate and accelerate technology transfer and technological diffusion. Such information could provide greater insights into (a) the relationship between environmental concerns and the demand for technologies and technical innovation; (b) the effectiveness of company strategies for adapting to the requirements of technological change and support for production processes which are environmentally responsible and competitive; and (c) trends regarding the dynamics of national environmental technology markets and more accurate international data regarding technology flows to developing countries.

3. Building capacity

108. The emphasis in Agenda 21 on more participatory approaches to sustainable development has influenced a new generation of capacity-building projects that has come on line since 1992. Most activities aimed at environmental management and sustainable development now make explicit efforts at stakeholder and beneficiary assessment. For example, the Capacity 21 programme established by UNDP after UNCED has proved to be an effective catalyst and learning mechanism to support capacity-building for sustainable development. As of May 1996, total contributions to Capacity 21, through both its trust fund and other mechanisms, stood at around US$ 57 million. Since 1993, the programme has helped to fund projects in over 40 countries.

109. Much progress has been made in the areas of strategy formulation, greater participation and information exchange. What has been lacking are the structures and capacities to carry out many of the technical functions associated with sustainable development. Putting such technical, scientific and institutional structures in place represents the long-term work facing many countries. The lack of co-financing from bilateral donors has slowed their ability to work on the larger multi-component capacity-building programmes.

4. Information for decision-making

110. Good quality information and data are crucial in identifying the nature and scale of problems but progress in collecting, organizing and presenting information in usable form has been mixed. The quality of information at the international level, in terms of data collection and development of indicators, has improved considerably since UNCED. National and local level information, and facilities for the exchange of such information, need to be further developed and improved.

111. Many of the data areas identified in Agenda 21, including urban air, freshwater, desertification, biodiversity, high seas and upper atmosphere, demographic factors, urbanization, poverty, health, rights of access to resources, and information on various major groups, have been inventoried at the international and regional levels. Considerable progress has been made in filling gaps, through initiatives of the United Nations system, other intergovernmental organizations and non-governmental organizations. To address the lack of critical long-term data necessary to understand global ecosystem problems, international organizations and the scientific community have designed observing systems to make data collection more coherent and cost-effective. Important mechanisms for observation, monitoring, assessment and exchange have been put in place to assess the state of planetary systems and enhance information flow. These include the Global Terrestrial Observing System (G-TOS), the Global Climate Observing System (G-COS) and the Global Ocean Observing System (GOOS). Notable innovations since UNCED include the World Hydrological Cycle Observing System (WHYCOS), the Global Coral Reef Monitoring Network, the Mountain Forum and the Global Modelling Forum. Important work is being carried out, in particular under the auspices of the Intergovernmental Forum on Chemical Safety (IFCS), on the development of information on chemical safety.

112. Since UNCED, much new work has been initiated on indicators for sustainable development. The Commission on Sustainable Development, for its part, launched a global process to draw upon these initiatives and make use of their collective expertise and knowledge to reach consensus on the technical validity, comparability and political acceptability of indicators. The Commission approved a programme of work which has led to the development of a preliminary core set of indicators of sustainable development, followed by the preparation of methodology sheets for each of the indicators. The aim is to have an agreed set of indicators available for use at the national level by the year 2000.

113. At the same time, work is progressing in various sectors to develop more detailed sectoral indicators to measure performance under international agreements, and in the scientific community to integrate the economic, social, environmental and institutional dimensions in more aggregated indicators, which take account of interlinkages. In this regard, a particularly fruitful approach to integrating the components of sustainable development in an operational framework is to think in terms of flows of investment which maintain or increase society's stock of environmental assets (natural capital), physical capital (the built environment), human capital and social capital. While limited substitution is possible among these different categories of assets, they are for the most part complementary. The challenge of sustainable development is

thus to build up all kinds of wealth into a people-enriching and nature-preserving system.

114. Less, though significant, progress has been made at the national and subnational levels. A growing number of countries have completed national inventories and organized the collection of needed data. Several factors account for this trend, including the rapid growth of national and subnational sustainable development strategies, plans and targets; adoption of national and local indicators; ratification of relevant international treaties; and, in some cases, support from the international community for the requisite capacity-building for these activities.

115. The work that has begun on streamlining national reporting in the field of sustainable development is of considerable importance and should be continued. Emphasis should be placed both on establishing a multi-year work programme that focuses, inter alia, on a calendar of reporting to assist national planning and on information-sharing among United Nations system organizations through electronic means to the extent possible.

116. Overall, great strides have been made in the availability of information independently of Agenda 21, as a result of rapid and revolutionary technological changes in computing, telecommunications and geographical information system technologies. However, far too little has been done to make national telecommunications systems responsive to the growing demand for electronic information. This is especially the case in some developing countries, where the lack of adequate infrastructure and telephone systems is hindering access to the new electronic networks.

III. CHALLENGES AND PRIORITIES AHEAD

117. The previous sections lead towards a number of general conclusions that should be taken into account when defining priorities for future international action towards sustainable development. Progress is evident in the many plans and strategies which have been developed at every level of operation. Strategies are the first step in the policy cycle which must then advance to politically difficult decisions on priorities and budget allocation, implementing actions and review.

118. Much remains to be done to ensure that sustainable development is understood by decision makers as well as by the public. Accordingly, there is a need for adequate communication strategies at the international and country levels to ensure that this understanding is achieved.

119. The four years of implementation of Agenda 21 have underlined the crucial importance of an integrated approach to sustainable development, involving all actors in a participatory process.

> Sustainable development strategies are important mechanisms to enhance and link national capacity, bringing together the priorities in social, economic and environmental policies involving participation of all concerned parties.

Capacity-building activities should give priority to their development and implementation.

Such strategies should also extend to the various levels of government.

Effective planning and implementation of sustainable development policies requires the participation of all social groups. Responsibility for managing resources, particularly at the local level, are often divided between women and men and between different socio-economic groups. Each group has specific knowledge and skills that should be integrated in the planning process, and participation in the policy-making process will encourage broad commitment to, and implementation of, sustainable development policies.

120. Eradication of poverty throughout the world is a priority element of sustainable development, as stated in Agenda 21 and further elaborated in the Programme of Action of the World Summit for Social Development.[8]

For people living in poverty, and for countries with a high incidence of poverty, the eradication of poverty must be a high priority, both as an end in itself and to promote sustainable use of natural resources. The commitments of the international community to support the efforts of developing countries must be reaffirmed and implemented.

121. Substantive progress has been achieved in further developing and adopting international consensus on the sustainable management of natural resources in the form of international agreements.

The focus of international discussions, including those taking place under the Rio Conventions (on climate change,[9] biodiversity[10] and desertification[11]), has moved from policy development to implementation. This holds true for the atmosphere, oceans, land management and biodiversity.

122. However, further policy development at the global level as guidance for implementation is needed in some areas.

The Ad Hoc Intergovernmental Panel on Forests is likely to leave certain areas of sustainable forest management unresolved. Evidence provided by the Comprehensive Assessment of the Freshwater Resources of the World sheds new light on the urgency of the freshwater situation in the world, which requires a consolidated policy response.

Scientific evidence on the negative impacts on health and ecosystems of certain chemicals, especially POPs, is such that the need for an international agreement on their phase-out is urgent.

123. In certain areas there is a need to improve policy coordination and implementation at the regional level.

Some issues, such as regional seas, certain aspects of climate change, transboundary conservation of biodiversity, transboundary environmental impacts, land degradation and transboundary movements of hazardous wastes, are among those which can be best tackled at the regional level.

124. The need for an integrated approach in the management of each of the natural resources is one of the important lessons from UNCED and its follow-up. In some areas, for example, oceans, a number of agreements have come into being that are not necessarily interlinked. Follow-up discussions must ensure improved integration.

125. More can be done to make the implementation of the three Rio Conventions (on climate change, biodiversity and desertification) mutually reinforcing, by addressing substantive linkages and identifying projects that achieve the objectives of more than one Convention.

126. To facilitate effective implementation, consideration of resource management issues must be combined with an equal emphasis on sectoral policy development.

Economic sectors (agriculture, fisheries, forestry, industry, human settlements, energy, transport, social services) must be involved in international discussions on implementation and held responsible for their contribution to problems and solutions. In this context, due attention should be given to such issues as health, sound management of wastes and chemical safety, among others.

127. Urgent action is required to slow, and where feasible, reverse the degradation of agricultural land. Improved management and restoration of irrigated land, and improved land-use planning to reduce unnecessary losses of productive land to development, are priorities.

Future food supplies will come in large part from intensification of agriculture, that is, increased yields from existing lands. Soil degradation and loss of productive lands reduce the potential for future gains and increase the technological, social and financial challenges of raising production.

128. The integration of health impact assessments into economic sectoral planning and in sustainable development plans needs priority attention.

129. Major gaps in international discussion of economic sectors exist, namely in the fields of energy, transport and tourism.

Energy is arguably the most critical link between environment and development, but the tensions between the legitimate energy needs of developing countries for socio-economic development and the consequences of expanded use of fossil fuels for human health and local, regional and global pollution have been inadequately addressed. This oversight has to some extent been redressed in the negotiations on climate change, but it remains an area that requires more focused analysis and action, not just in terms of new and renewable forms of energy, but the more basic issue of how

developing countries, in particular, can acquire the levels of energy supply needed for their development while reducing dependence on carbon-based fuels.

In transport, improvements in efficiency in fuel and material use are largely outweighed by the growth of the sector.

Tourism is the fastest growing economic sector, with major social and environmental impacts.

130. The discussion on changing consumption and production patterns must move from a rather abstract level, for example, by providing a strategic approach and concrete measures to be taken by the economic sectors. The impact of changing consumption and production patterns in industrialized countries on the export opportunities of developing countries must be kept under permanent review.

131. The need for international discussions on making the objectives of trade liberalization and sustainable development mutually supportive is undisputed. This should be coupled with enhanced discussion and coordination at the national level.

The focus of the debate could shift from narrowly defined trade and environment issues to an integrated consideration of all factors relevant for achieving sustainable development, with an emphasis on synergies rather than on restrictions. The debate should be supported by improved empirical analysis. Identification and effective implementation of positive measures deserve priority attention.

132. Broad participation has been essential for achieving progress in policy development and implementation of sustainable development. Further consideration must be given to new forms of governance that reflect the increased responsibility and accountability of major groups.

The role of the private sector is ever increasing. Major resource flows from the developed to the developing countries and economies in transition take place through the private sector. Although private capital has the potential to finance sustainable development, so far it has typically avoided projects whose main purpose is to generate environmental and social benefits. However, developing countries offer investment opportunities that generate social and environmental gains and could also be profitable if they ensure a more efficient provision of goods and services for which users are willing to pay (win-win opportunities). Furthermore, involvement of the private sector (industry and the private financial sector) in the international policy discussions on sustainable development is needed.

133. Public international financial resources for the implementation of sustainable development in developing countries have not met the commitments made by the donor countries at UNCED.

Reconfirmation of the commitments made at UNCED and specific commitments for support to those areas that are closely linked to the fulfilment of basic needs and where coordinated programmes have been developed by the international community (e.g., in the field of water, energy and forests) are needed to maintain the credibility of partnerships between developed and developing countries.

The scarcity of funds to finance sustainable development is particularly acute for low-income developing countries. This is because they attract little external private capital, receive decreasing amounts of ODA, and many of them have heavy external debt burdens. The 1990s have witnessed growing gaps between least developed countries and other developing countries with regard to GNP and per capita income growth rates, and many other indicators of human development.

It would appear that developing countries that have embraced sound, stable and outward-oriented macroeconomic and trade policies during the 1990s (such as those adopted by many middle-income Latin American and Asian countries) do attract private capital and have easier access to external debt alleviation programmes. However, these policies require costly political, economic and administrative reforms. Because ODA is an important source of finance for these reforms, especially in the least developed countries, donor countries should intensify efforts to meet the UNCED target on ODA.

134. Limited progress has been made with the implementation of economic instruments to internalize environmental costs in goods and services.

Active exchange of information on the successful use of economic instruments may be conducive to their further introduction.

135. Technology partnerships and cooperative arrangements are needed to stimulate practical cooperation between Governments and industry at both the national and international levels.

More information is needed from both Governments and the private sector regarding the effectiveness of policies to facilitate and accelerate technology transfer and technological diffusion.

136. The information base for decision-making on sustainable development is still uneven and access to existing information systems must be strengthened.

There is a need to improve capabilities for data acquisition from large areas of the world on a scale necessary to monitor the environment properly. Many of the environmental problems, such as climate change, desertification and the extinction of living species, unfold over long timescales. The need for data and processed information with adequate temporal and spatial resolution is still significant.

137. Consolidated scientific evidence is essential for international policy development.

There is a need for further scientific cooperation, especially across academic disciplines, in order to verify and strengthen scientific evidence for environmental change. Some examples of cooperation already exist, such as the Intergovernmental Panel on Climate Change, and work carried out by the Intergovernmental Forum on Chemical Safety.

Education for all needs to be assured as another crucial factor associated with policy development. The concerns of sustainable development, global interdependence and peace must be fully integrated in formal and non-formal education and public awareness-raising.

138. A gender perspective should be applied in all aspects of the implementation of Agenda 21.

This is essential in order to assess the actual and potential contribution of women and men to formulating and implementing relevant policies and programmes, as well as to adequately assess the impacts of economic and social conditions and of environmental degradation on the population as a whole. The need for gender-disaggregated data is a priority in facilitating gender-sensitive analysis and policy-making.

IV. INSTITUTIONAL FRAMEWORK AND THE ROLE OF THE COMMISSION ON SUSTAINABLE DEVELOPMENT AFTER 1997

A. Institutional framework

139. The collective view of the secretariats of the organizations of the United Nations system is that the concept of sustainable development should continue to provide an "overarching" policy framework for the entire spectrum of United Nations activities in the economic, social and environmental fields at the global, regional and national levels. All intergovernmental and inter-agency bodies and processes should contribute, within their mandates and areas of competence, to further progress in achieving the goals of sustainable development through concrete action and decision-making. Full account must also be taken of the overall framework for cooperation agreed by the international community in the context of the coordinated follow-up to all recent United Nations conferences, since all have made an important contribution to specific aspects of the global sustainable development agenda.

140. The overall institutional framework for the implementation of Agenda 21, as outlined in chapter 38, would seem to be fully relevant for the period after the 1997 review. However, the General Assembly at its special session may wish to consider how this framework could best be deployed in the future. More specific suggestions on this matter are contained in document E/CN.17/1997/2/Add.28. At the same time, bearing in mind the specific request contained in paragraph 13 (d) of General Assembly resolution 50/113, the present report includes recommendations on the future role of the Commission on Sustainable Development in the follow-up to the special session, which are outlined below.

B. Programme of work of the Commission on Sustainable Development

141. The first multi-year programme of work of the Commission on Sustainable Development was organized in a way that allowed for in-depth consideration of all the individual chapters of Agenda 21 over the period of three years. Such an approach was appropriate for the first review cycle. It provided an effective opportunity for the Commission to carry out an initial analysis of institutional and policy changes and activities at the international, national and "major group" levels to implement all chapters of Agenda 21, adopt specific recommendation to operationalize specific recommendations of UNCED and provide a forum for exchanges of relevant experiences.

142. However, some disadvantages have become apparent. Annual sessions of the Commission have been overloaded with issues and reports. Additionally, separate consideration of individual chapters of Agenda 21 has not always allowed the Commission to examine linkages between various sectoral and cross-sectoral issues addressed in Agenda 21, and interrelationships among various economic, social and environmental aspects of sustainable development have not always been addressed adequately. The impression has sometimes been created that there is some duplication of work between the Commission and other intergovernmental bodies or processes. At the same time, the annual, generic policy discussion of some issues (e.g., the role of major groups; economic instruments; decision-making, capacity-building) has become somewhat repetitive.

143. The experience of the first programme of work of the Commission should be taken into account in designing the next cycle of the work programme. In addition, the substantive results of the assessment of overall progress in implementing Agenda 21, and future priorities to be identified at the special session, would need to be considered.

144. Following the 1997 review, the Commission should continue to provide a central forum for reviewing further progress in the implementation of Agenda 21 and for policy debate on sustainable development in general. At the same time, it would seem essential for the Commission to ensure a greater focus on those issues that require further policy discussion and agreement. Comprehensive reviews of all chapters of Agenda 21 could be carried out only once in several years, or as the need arises.

145. It is suggested that the future programme of work of the Commission could be organized on the basis of the following considerations:

(a) Implementation of all chapters/thematic areas of Agenda 21 will continue to be reviewed. However, only a limited number of chapters/thematic areas will be given in-depth consideration in a given year. Other chapters/thematic areas will be reviewed only in the context of their relationship to those chapters/areas which are the current focus of discussion. In other words, chapters/thematic areas chosen in a given year for a focused, in-depth discussion could serve as an "entry point" to a broader discussion, involving linkages with related provisions under other chapters (both in terms of conceptual and/or policy linkages, and in terms of consideration of relevant means of implementation);

(b) The following criteria may be applied for selecting those issues which would be the subject of focused discussion in the next multi-year programme of work of the Commission:

(i) Issues should be of significance in achieving the goals of sustainable development worldwide, involving promotion of policies which integrate economic, social and environmental dimensions of sustainability and promote coherence of action at all levels;

(ii) Issues should require further dialogue and consensus-building before internationally agreed strategies or frameworks for action could be adopted;

(iii) Issues should be "cross-cutting", providing the opportunity for integrated consideration;

(iv) Issues should involve means of implementation, the role of various economic sectors and major groups, and matters relating to socio-economic factors, such as health or consumption and production patterns, which need to be given a more prominent role in the work programme. However, consideration of these issues would be better integrated into the discussion of specific thematic areas;

(v) Issues which are addressed in Agenda 21, but which are dealt with in a systematic way in another intergovernmental body/process (i.e., human settlements (Commission on Human Settlements); poverty (Commission for Social Development); climate change (United Nations Framework Convention on Climate Change); biodiversity (Convention on Biological Diversity); desertification (United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa)) may not be the subject of separate focused discussions in the Commission, but should be considered only in terms of their relationship to other issues;

(c) To lighten the Commission's agenda and to provide for a more focused and in-depth consideration of key policy issues, the Commission, during its next programme cycle, could limit itself to only three substantive items on the agenda of its annual sessions. This would allow the Commission, during the next four years (1998-2001) to consider thoroughly all issues that will be selected for in-depth discussion and, at the same time, undertake an integrated analysis of all of the chapters of Agenda 21. In 2002, the Commission could carry out a second comprehensive review of overall progress in the implementation of Agenda 21 in its entirety.

146. More specifically, in a given year the Commission could include three substantive items on its agenda:

(a) An item dealing with a cluster of cross-sectoral issues;

(b) An item focusing on sustainable development in a natural resource sector;

(c) An item focusing on the role of a relevant economic sector/major group in sustainable development.

For example, the programme of work of the Commission for the next five-year period could be organized as shown in the table below.

SUGGESTED MULTI-YEAR PROGRAMME OF WORK OF THE COMMISSION ON SUSTAINABLE DEVELOPMENT, 1998-2002

1998 session		
Sectoral theme for in-depth consideration: FRESHWATER	Cross-sectoral theme for in-depth consideration: TRANSFER OF TECHNOLOGY/ CAPACITY-BUILDING/ EDUCATION/SCIENCE	Economic sector/major group: INDUSTRY
Main issues for an integrated discussion under the above theme: Agenda 21, chapters 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 18, 19, 20, 21, 24, 28, 30, 32, 33, 34, 36, 37, 40	Main issues for an integrated discussion under the above theme: Agenda 21, chapters 2, 3, 4, 6, 16, 26, 30, 31, 33, 34, 35, 36, 37, 40	Main issues for an integrated discussion under the above: Agenda 21, chapters 4, 6, 9, 16, 17, 19, 20, 21, 22, 29, 30, 31, 33, 34, 35, 40

1999 session		
Comprehensive review of the Programme of Action for the Sustainable Development of Small Island Developing States		
Sectoral theme for in-depth consideration: OCEANS AND SEAS	Cross-sectoral theme for in-depth consideration: CONSUMPTION AND PRODUCTION PATTERNS	Economic sector: TOURISM
Main issues for integrated discussion under the above theme: Agenda 21, chapters 4, 5, 6, 7, 9, 15, 17, 19, 20, 21, 22, 33, 34, 35, 36, 39, 40	Main issues for integrated discussion under the above theme: Agenda 21, chapters 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 18, 19, 20, 21, 24, 25, 27, 28, 30, 31, 34, 35, 36, 40	Main issues for integrated discussion under tourism: Agenda 21, chapters 2, 4, 5, 6, 7, 13, 15, 17, 25, 26, 27, 28, 33, 36

2000 session		
Sectoral theme for in-depth consideration: LAND RESOURCES	Cross-sectoral theme for in-depth consideration: FINANCE/TRADE/ECONOMIC GROWTH	Economic sector/major group: AGRICULTURE
Main issues for integrated discussion under the above theme: Agenda 21, chapters 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 26, 28, 32, 33, 34, 35, 36, 37, 40	Main issues for integrated discussion under the above theme: Agenda 21, chapters 2, 3, 4, 27, 28, 30, 33, 36, 37, 38, 40	Main issues for integrated discussion under the above: Agenda 21, chapters 2, 3, 4, 5, 6, 7, 10-16, 18, 19, 21, 24, 26, 28, 32, 33, 34, 37, 40

2001 session		
Sectoral area for in-depth consideration: ATMOSPHERE	Cross-sectoral theme for in-depth consideration: INFORMATION FOR DECISION-MAKING	Economic sector/major group: ENERGY; TRANSPORT
Main issues for integrated discussion under the above theme: Agenda 21, chapters 4, 6, 7, 8, 9, 11, 12, 13, 14, 17, 27, 28, 30, 31, 33, 34, 35, 36, 37, 39, 40	Main issues for integrated discussion under the above theme: Agenda 21, chapters 2, 4, 6, 8, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40	Main issues for integrated discussion under the above: Agenda 21, chapters 2, 3, 4, 5, 8, 9, 20, 22, 28, 29, 30, 31, 33, 34, 35, 36, 37, 40

2002 session		
Comprehensive review		

147. The suggested timing for the consideration of various "key" themes takes into account the time when similar issues were considered in the Commission during the period 1993-1996, relevant decisions taken by the Commission and other intergovernmental bodies that deal with the consideration of specific issues after 1997, and expected outcomes of ongoing intergovernmental processes. The General Assembly at its special session may wish to consider a different

schedule. Special consideration was also given to conceptual linkages between various issues, inter alia, with a view to attracting attention to the work of the Commission of ministers and national policy makers responsible for specific economic sectors, who may wish to attend the high-level segments of the Commission in a given year jointly with ministers of environment and development.

Notes

[1] Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

[2] Ibid., annex I.

[3] Ibid., annex III.

[4] World Population Prospects: 1996 Revision (United Nations publication, forthcoming).

[5] World Population Prospects: 1994 Revision (United Nations publication, Sales No. E.95.XIII.16).

[6] See United Nations Environment Programme, Convention on Biological Diversity (Environmental Law and Institutions Programme Activity Centre), June 1992.

[7] Report of the Global Conference on the Sustainable Development of Small Island Developing States, Bridgetown, Barbados, 25 April-6 May 1994 (United Nations publication, Sales No. E.94.I.18 and corrigenda), chap. I, resolution 1, annex II.

[8] A/AC.237/18 (Part II)/Add.1, annex I.

[9] A/49/84/Add.2, annex, appendix II.

[10] A/50/550, annex I.

[11] A/51/116, annex I, appendix II.

[12] Report of the World Summit for Social Development, Copenhagen, 6-12 March 1995 (United Nations publication, Sales No. E.96.IV.8), chap. I, resolution 1, annex II.